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**Dynamic Capabilities for CSR Management: Towards Identifying
Common Processes**

Abstract

Purpose – Facing the rapidly evolving CSR expectations of stakeholders and the limited diffusion of CSR standardization, both researchers and practitioners have paid increasing attention to the question of *whether and how firms can follow a standard management process to cope with emerging CSR challenges?* The objective of this paper is to address this question by developing a theoretical framework to explain how dynamic capabilities can contribute to effective CSR management.

Design/methodology/approach – Based on 64 world-leading companies’ contemporary CSR reports, we carried out a large-scale content analysis to identify and examine the common organizational processes involved in CSR management and the dynamic capabilities underpinning those management processes.

Findings – Drawing on the dynamic capabilities perspective, we demonstrate how the deployment of three dynamic capabilities for CSR management, namely scanning, sensing and reconfiguration capabilities can help firms to meet emerging CSR requirements by following a set of common management processes. The findings demonstrate that what is more important in CSR standardization is the identification and development of the underlying dynamic capabilities and the related organizational processes and routines, rather than the detailed operational activities.

Originality/value – Our study is an early attempt to examine the fundamental organizational capabilities and processes involved in CSR management from the dynamic capabilities perspective. Our research findings contribute to CSR standardization literature by providing a new theoretical perspective to better understand the capabilities enabling common CSR management processes.

Keywords: Dynamic Capabilities, CSR Report, CSR Management, Corporate Sustainable Development

Paper classification: Research paper

Introduction

Over the last two decades, firms are under increasing pressures from the society to take Corporate Social Responsibility (CSR) to address emerging sustainability issues (Carroll,

1979; Bansal, 2005, Porter and Kramer, 2006). According to Carroll (1979), CSR means considering and responding to the economic, legal, ethical and discretionary expectations of various stakeholders. The recent studies on CSR suggest that firms should meet the intersection of the triple bottom line, namely economic prosperity, environmental integrity and social equity (Elkington, 1998; Bansal, 2005, Baron, 2009). The management of CSR issues greatly challenges firms' traditional shareholder-focused, profit-centric philosophy, and drives them to pursue new principles and strategies for long-term sustainable development (Bansal, 2005).

One of the most important barriers which hinder the wider diffusion of CSR among contemporary firms is the lack of CSR standardization. This is largely due to the varied characteristics of industrial sectors and the unique business and social environments in which firms operate. The question of *whether and how firms can follow a standard way to cope with emerging CSR challenges*, therefore, has drawn increasing attention from both researchers and practitioners (Hart and Sharma, 2004; Porter and Kramer, 2006, Hart and Dowell, 2010). If universal structured CSR standard can be agreed upon and applied across industrial and national boundaries, the standard will provide firms with not only shared vision of CSR, but also concrete guidelines for the CSR implementation. Limited previous studies respond this question by explaining the key considerations involved in CSR. For example, Mitchell *et al.* (1997) provide the general guidance for firms to identify the most salient stakeholder requirements in terms of power, legitimacy, and urgency. Furthermore, Wood (1991) examines and categorizes the strategic CSR principles that should be adopted by firms. These studies largely focus on the identification of general CSR goals from the stakeholder perspective. However, much less attention is paid to whether and how firms can follow a set of common managerial processes to accomplish these CSR goals.

The purpose of our study is to fill this void by examining the underlying organizational capabilities and processes involved in CSR management. Drawing on the Dynamic Capabilities View (DCV) (Teece, *et al.*, 1997), we argue that even if globally applicable CSR standards cannot be defined, a common set of dynamic capabilities do exist among firms, which support the development of various CSR practices and activities. Hence, we propose a theoretical framework to illustrate how firms can use their dynamic capabilities to meet the rapidly changing CSR expectations of stakeholders through systematically sensing and seizing sustainable development opportunities. Based on a large-scale content analysis, the key CSR management processes derived from the CSR reports of global leading companies are used to verify the framework. In the content analysis, we do not focus on the detailed CSR activities carried out by firms. Instead we try to identify the commonalities existing in the

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managerial processes by which firms deploy their dynamic capabilities to consistently develop and implement their CSR initiatives. The identification of these commonalities across industrial and national boundaries will potentially add value to the further development of CSR standardization literature.

The paper is organized as follows. The next section examines the distinctive challenges involved in CSR. The paper then defines and specifies the dynamic capabilities for CSR management. By explicating the role of dynamic capabilities in facilitating CSR implementation, we develop a framework of dynamic capabilities for CSR management from the firm's perspective. After that, a content analysis based on CSR reports is presented to examine the common management processes adopted by world leading companies for CSR and the dynamic capabilities underpinning those processes. This paper is concluded with the discussion of managerial implications and future research directions.

CSR: a distinctive challenge faced by firms

The meaning of CSR has been extensively studied in the literature (Margolis and Walsh, 2003). Earlier research focuses on the obligatory duties and voluntary actions of firms to satisfy stakeholder requirements (Davis, 1973; Carroll, 1979; Wood, 1991). These studies hold a stakeholder-focused perspective and claim that the central issue involved in CSR is improving social or environmental conditions for the societal welfare (Wood and Jones, 1995; Waddock, 2004). The process model of corporate social responsiveness developed by Wood (1991), for example, suggests that CSR responsiveness typically involves three processes: stakeholder management, environmental assessment and social issues management.

More recent research, however, has begun to emphasize the interaction between public welfare and corporate self-benefit in CSR (Bansal, 2005; Barnett, 2007; Mackey *et al.*, 2007). As explained by Pesqueux and Damak-Ayadi (2005), the empirical nature of CSR involves the interests of both firms and their stakeholders. By taking into account not only environmental integrity and social equity, but also economic prosperity, these studies argue that the ultimate goal of CSR is to simultaneously meet the triple bottom line for long-term corporate sustainable development (Elkington, 1998; Bansal, 2005). **In fact, many previous studies suggest that, if managed properly, firms' CSR activities, or more broadly speaking, corporate sustainable development, can be a key driver for both societal welfare and firms' sustained competitive advantage (Hart, 1995; Shrivastava, 1995; Russo and Fouts, 1997; Porter and Van de Linde, 1999; Porter and Kramer, 2006).**

In short, the existing literature represents CSR as a multidimensional construct. On the one hand, CSR requires firms to consider the sustainability requirements of various stakeholders, not just owners and shareholders (Bansal, 2005). On the other hand, CSR means that firms should be responsible for not only their financial outcome, but also their environmental and social outcomes (Elkington, 1998; Bansal, 2005). In this sense, the CSR challenges faced by firms concentrate on two basic aspects: stakeholder management and the triple bottom line.

The challenge of stakeholder management

Stakeholder management involves identifying legitimate stakeholders and satisfying their CSR requirements (Mitchell, *et al.*, 1997). Freeman (1984:46) defines stakeholder as “any group or individual who can affect or is affected by the achievement of the organization’s objectives”. Clarkson (1995) classifies stakeholders as primary and secondary ones, and stresses that the sustainability concerns of secondary stakeholders should also be considered even “they are not engaged in transactions with the corporation and are not essential for its survival” (Clarkson; 1995: 106). Examples of primary stakeholders include shareholders, government and customers (Freeman, 1984; Gladwin *et al.*, 1995). Secondary stakeholders include Non-Governmental Organizations (NGOs) and other civil society groups (Jennings and Zandbergen, 1995; Gladwin *et al.*, 1995).

However, constrained by the limited resources and capabilities, firms usually cannot simultaneously meet all requirements from such a broad variety of stakeholders (Dixon and Fallon, 1989; Gladwin *et al.*, 1995; Escobar and Vredenburg, 2011). Therefore, stakeholder management becomes a major challenge encountered by firms. To reconcile this dilemma, Mitchell *et al.* (1997) and Agle *et al.* (1999) suggest that firms should identify and satisfy the most salient stakeholders based on three relationship attributes: power, legitimacy and urgency. This is especially the case when the CSR requirements from different stakeholders contradict with each other (Dixon and Fallon, 1989; Gladwin *et al.*, 1995; Escobar and Vredenburg, 2011). This relationship-attributes model greatly contributes the managerial understanding in dealing with multiple stakeholder interests. However, firms still need to use their own judgements to determine who are the most powerful, legitimate and urgent stakeholders. The complexity involved in this judgement will neutralize the benefits brought by the implementation of this relationship-attributes model.

The challenge of meeting the triple bottom line

The stakeholder pressure for CSR urges firms to deliver not only economic, but also environmental and social values (Waddock and Graves, 1997; Elkington, 1998). Nevertheless,

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firms have to develop their own approaches to meet the triple bottom line due to the lack of standard procedures and performance criteria of CSR (Wood, 1991), or more broadly speaking, due to the vagueness of corporate actions towards sustainable development (Pesqueux, 2009). There is also great level of ambiguity involved in the CSR strategy implementation, because limited external market exists by which firms can generate revenues directly from the environmental and social values they create for the public (Berchicci and King, 2007).

A number of studies advocate the possibility that firms can follow a mutually beneficial path to contribute to both public welfare and their competitive advantage (Hart, 1995; Shrivastava, 1995; Russo and Fouts, 1997; Porter and Van de Linde, 1999; Porter and Kramer, 2006). But at the same time, previous empirical research finds limited evidence that there is positive relationship between CSR implementation and corporate financial performance (Wright and Ferris, 1997; McWilliams and Siegel, 2000). The mixed result leaves managers no clear indication on whether CSR initiatives really pay off (McWilliams and Siegel, 2001).

Indeed, as observed by McWilliams and Siegel (2001; 2011), firms hold quite different views on CSR. A growing number of firms have already proactively engaged in CSR investments and received fruitful returns in economic, environmental and social terms (Porter and Kramer, 2006). However, many firms still keep a cautious attitude because they tend to believe that such efforts are inconsistent with their immediate business interests.

Overall, firms' engagement in CSR is seriously impeded by the complexities and challenges involved. If structured CSR standards can offer consistent and reliable guidance for CSR implementation, firms may reduce their anxiety and become more active in sensing and satisfying various stakeholder requirements. In this regard, Hart and Dowell (2010) propose that dynamic capabilities perspective can contribute to a better understanding of the underlying managerial processes by which firms undertake complex CSR strategies. Drawing on this argument, we examine the role dynamic capabilities can play in guiding firms' CSR management.

Dynamic capabilities and CSR management

Since the seminal work of Teece *et al.* (1997: 516) introduces the concept of dynamic capabilities as “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments”, the characteristics of dynamic capabilities have been extensively discussed by the literature (Barreto, 2010). Dynamic

capabilities are a special kind of organizational capabilities that should be differentiated from functional organizational capabilities (Zollo and Winter, 2002; Winter, 2003; Zahra *et al.*, 2006). While functional capabilities are “zero-order” capabilities focusing on operational activities and current organizational performance (Winter, 2003), dynamic capabilities are “higher-order” capabilities that are deliberately operated to reconfigure the functional capabilities in response to new market conditions (Zollo and Winter, 2002). Alternatively speaking, dynamic capabilities are firms’ ability to identify emerging opportunities and threats (Gilbert, 2006; Teece, 2007), and subsequently modify their existing organizational functions to achieve the strategic fit between external environment and internal configurations (Helfat *et al.*, 2007).

Despite a small number of recent studies which suggest that firms can use dynamic capabilities to develop their sustainable development strategies as a response to the CSR requirements of stakeholders (e.g., Aragon-Correa and Sharma, 2003; Hart and Dowell, 2010), the existing DCV literature mainly focuses on how dynamic capabilities can facilitate the achievement of the economic bottom line of businesses (e.g., Teece *et al.*, 1997; Winter, 2003; Zahra *et al.*, 2006). There is thus a paucity of research explicating the dynamic capabilities that can be applied to CSR management to meet the economic, environmental and social goals simultaneously.

The extensive review of literature suggests that the relevance of dynamic capabilities for CSR management can be understood from three perspectives. First, the major challenge of CSR is to meet both stakeholder expectations and the triple bottom line. This challenge needs firms to consider both external requirements and their internal situations, so as to achieve a balanced point between public welfare and corporate interest (McWilliams and Siegel, 2001). In this regard the possession of dynamic capabilities by firms will support the effective CSR management. On the one hand, dynamic capabilities enable firms to scan and prioritize the most important CSR requirements from various stakeholders, before CSR strategies are developed. On the other hand, dynamic capabilities also enable firms to seize emerging opportunities of sustainable development by making necessary changes to the existing routines and unsustainable operations so as to meet the requirement of triple bottom line in an efficient and effective manner.

Second, dynamic capabilities are considered as replicable routines (Winter, 2003). The repeatability and reliability of dynamic capabilities are heavily stressed in the DCV literature, which defines dynamic capabilities as specific and identifiable processes (Eisenhardt and Martin, 2000), learned and stable patterns of collective activities (Zollo and Winter, 2002), or

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capabilities to perform given tasks in an acceptable and repetitive manner (Teece *et al.*, 1997; Helfat *et al.*, 2007). Therefore, CSR management can benefit from the dynamic capabilities of firms to develop stable and identifiable routines for CSR strategies development and implementation despite the rapidly changing business and social environment.

Third, according to Eisenhardt and Martin (2000), dynamic capabilities exhibit certain commonalities across firms. These commonalities exist because firms follow multiple, but similarly effective ways in dynamic capabilities execution (Barreto, 2010). Alternatively stated, although the dynamic capabilities possessed by different firms are idiosyncratic in detail, overlapped key features can always be identified in terms of organizational processes or routines (Eisenhardt and Martin, 2000). Applying this assertion to the context of CSR management, when firms start taking CSR into consideration, they may follow certain processes or routines to develop suitable CSR strategies and practices (Aragon-Correa and Sharma, 2003). Those processes or routines can have certain similarities. Even though those similarities may be limited, they do exist because of the similar external requirements or the mobilization of similar organizational resources. From this perspective, it is reasonable to argue that firms' CSR management can benefit from the application of a common set of dynamic capabilities.

Overall, the dynamic capabilities have the potential to benefit firms' CSR management. In this paper we argue that firms which possess dynamic capabilities will be more able to develop and implement effective CSR strategies and practices. Hence, we want to find out what are the commonalities of dynamic capabilities that facilitate CSR management.

Characteristics of the dynamic capabilities for CSR management

In this paper the dynamic capabilities for CSR management are defined as *firms' abilities to address the rapidly evolving CSR expectations by purposefully modifying functional capabilities for the simultaneous pursuit of economic, environmental and social benefits.*

This definition is underpinned by DCV literature, but also incorporates the insights gained from the research on CSR and corporate sustainability. The word *purposefully* particularly indicates that the application of the dynamic capabilities for CSR management involves deliberate managerial attention to derive *sustainable development opportunities* from external stakeholders' demands (McWilliams and Siegel, 2001; 2011). Here sustainable development opportunities are those that firms can use to generate the environmental and social values for the public as well as the economic value for themselves (McWilliams and Siegel, 2001). The

definition is also in line with the conception of dynamic capabilities as the higher-order capabilities (Zollo and Winter, 2002; Winter, 2003; Zahra *et al.*, 2006) to change the functional capabilities that become inadequate to cope with emerging CSR challenges (Hart and Dowell, 2010).

This definition also echoes the view of social-economic approach to management that firms can jointly attain social and economic performance (Savall, 2003; Savall and Zardet, 2008). First, satisfying emerging CSR needs of stakeholders is the key means by which firms can improve corporate social and environmental performance. Second, using evolving CSR requirements as a guidance, firms can systematically diagnose and modify existing business dysfunctions, minimize hidden costs, so as to improve overall economic productivity (Buono and Savall, 2007). In this sense, firms' profit strategies and socially-oriented strategies can be compatible (Savall, 2003; Savall and Zardet, 2008).

DCV literature suggests that dynamic capabilities are a multidimensional construct (Wang and Ahmed, 2007; Barreto, 2010). First, dynamic capabilities are firms' abilities to monitor the constantly shifting environment (Schreyögg and Kliesch-Eberl, 2007), and sense new business opportunities and threats (Teece, 2007). Second, they also represent the antecedent organizational routines by which firms alter their resource deployment to generate new value-creation strategies (Eisenhardt and Martin, 2000). We adopt but extend from this theoretical viewpoint to further argue that the dynamic capabilities for CSR management can be disaggregated into three distinctive, but related capabilities for firms to (1) scan the emerging CSR requirements of various stakeholders, (2) sense sustainable development opportunities from the rapidly changing stakeholder expectations, and (3) reconfigure existing functional capabilities for CSR.

To be pointed out, in traditional DCV literature, a firm's capability to scan external environmental changes and its capability to sense the relevant business opportunities are often regarded as a unified theoretical construct (e.g., Gilbert, 2006; Teece, 2007). When considering only the economic bottom line, external environmental changes largely represent emerging customer demands and technological possibilities (Teece, 2007). These emerging demands and possibilities can lead to potential business opportunities by which firms can generate financial returns through external market transactions (Berchicci and King, 2007).

However, firms' dynamic scanning capability and sensing capability need to be delineated separately in the context of CSR management. Recognizing and understanding stakeholders' CSR expectations does not mean firms can always automatically derive profitable business

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opportunities from them (McWilliams and Siegel, 2001). Therefore, following the view of social-economic approach to management, we suggest that firms should develop the sensing capability to overcome their existing cognition frames (Argyris and Schön, 1978), and transform the evolving CSR signals into sustainable development opportunities through innovation and cross-functional knowledge sharing (Savall, 2003; Savall and Zardet, 2008)

Based on the extensive review of literature, a theoretical framework is developed to illustrate how firms can deploy their dynamic capabilities to timely sense emerging sustainable development opportunities from stakeholder CSR expectations, and modify their internal resource and capabilities accordingly to meet the triple bottom line (see Figure 1).

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Insert Figure 1 about here
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Within this framework, the interrelatedness among the scanning, sensing and reconfiguration capabilities should be highlighted. First, this interrelatedness involves a sequential logic in deploying the three dynamic capabilities for CSR management. Facing the rapidly evolving stakeholder expectations, the scanning capability needs to be in place first to recognize and prioritize emerging CSR requirements (Aragon-Correa and Sharma, 2003). Based on the accurate understanding of the most relevant CSR concerns, the sensing capability then enables firms to identify potential sustainable development opportunities from those concerns, and adjust their existing strategic position and future CSR plans (Teece, 2007). Similarly, the reconfiguration capability is relevant only when the sensing capability has already provided the development direction and guidance for modifying the business functions that become unsustainable (Schreyögg and Kliesch-Eberl, 2007).

Second, **interactions** between these three dynamic capabilities are also evident. For example, because the CSR requirements from different stakeholders sometimes contradict with each other (Dixon and Fallon, 1989; Gladwin *et al.*, 1995; Escobar and Vredenburg, 2011), the deployment of scanning capability needs the support of the sensing capability to evaluate, compare and verify the most important concerns based on the level of their significance to firm's strategies and operations. Likewise, the sensing capability cannot be deployed independently from the reconfiguration capability. Sensing and seizing CSR development opportunities requires firms to apply new knowledge to their existing operations to realize both private and public benefits (McWilliams and Siegel, 2011). Without a comprehensive understanding about how their internal operations are organized and how they can be

reconfigured, firms cannot really absorb the newly acquired sustainability insights into their existing knowledge base. In addition, the reconfiguration capability also relates to the scanning capability. Because developing scanning capability may require the establishment of new communication channels with stakeholders (Hart and Sharma, 2004; Berchicci and King, 2007), the reconfiguration capability is thus needed to change the information-sharing processes within firms' existing organization structure. Overall, there are clear synergies among these three dynamic capabilities.

Guided by this conceptualization of dynamic capabilities for CSR management, we try to examine the common CSR-oriented practices of firms. Thus, we will be able to identify the underlying common management processes by which firms deploy their dynamic capabilities for CSR management and corporate sustainable development.

Research methods

In this paper, CSR reports of companies were used as the main source to identify the common CSR-oriented practices. The reason is twofold. First, the published CSR reports normally contain the latest CSR initiatives and practices that companies wish to report to the public (Gary and Milne, 2002; Porter and Kramer, 2006). Although it could be argued that CSR reports may include more of the good practices rather than failures (Porter and Kramer, 2006), CSR reports can still reflect the up-to-date CSR focuses of modern companies. Second, CSR reporting is increasingly adopted by the leading companies around the world, and thus becomes an appropriate proxy to examine the potential commonalities in the CSR management practices applied across various industrial sectors and nations.

To ensure that CSR reports are extracted from representative companies in industries, the candidate companies for the analysis were chosen from the top ones that are listed in FTSE4Good Index and Dow Jones Sustainability Index (DJSI). FTSE4Good and DJSI are two major socially responsible investing indices that receive prominent public acceptance (Chatterji and Levine, 2006). These two indices are considered as the most comprehensive and up-to-date ones which covers various CSR performance of modern companies.

Initially, 114 companies, 46 from FTSE4Good and 68 from DJSI, were short listed due to their reputations and influence in the sector. 43 of these companies are listed in both indices, so when the list were combined a total of 71 companies were in the short list. These sample companies were then organized based on the industrial sectors and the geographic regions. It is worth noting that FTSE4Good and DJSI use quite different ranking criteria (Porter and

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Kramer, 2006). This allows us to examine a wide array of CSR strategic focuses and activity patterns of the listed companies in these two renowned indices.

Once the candidate companies were identified, the availability of their CSR reports was checked at both the companies’ official websites and corporateregister.com (CorporateRegister, 2012). The CSR reports of these companies were then evaluated for completeness and relevancy. 64 companies are the finally selected for the analysis because the complete current CSR reports can be obtained from these companies. The selected companies are based in three major geographic regions: America (20), Europe (26) and Asia (28). These companies come from eight industrial sectors: Industrial Goods (10), Consumer Goods (16), Materials (8), Technology (7), Telecommunications (5), Oil and Gas (5), Healthcare (9) and Finance (4) (see Table 1). The wide spread of regions and industrial sectors of companies ensures the representativeness of the sample and enhances generalisability of the analysis.

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Content analysis was applied to examine the common CSR-oriented practices identified from these CSR reports. Content analysis is particularly useful to systematically evaluate the themes of recorded communication (Kolbe and Burnett, 1991). Researchers can use content analysis to synthesize long texts into several meaningful themes (Stemler, 2001). In our content analysis, three researchers with substantial knowledge of corporate sustainability and CSR were involved. First, one researcher read through the CSR reports of the selected companies to identify the common practices that can be related with the dynamic capabilities for CSR management, and condensed these practices into several key organizational processes. Second, the second researcher verified the practices and processes concluded by the first researcher, and categorized them under the three dynamic capabilities for CSR management, namely scanning, sensing and reconfiguration capabilities. Third, the categorization structure proposed by the second researcher was reviewed independently by the first researcher and the third researcher. These two researchers were asked to evaluate the consistency and relevancy of the key categories. They were also asked to propose alternative ways of categorization. Fourth, the evaluation results were then reported to the second researcher, who identified and compared the major areas of the inconsistencies, and made changes to the categorization accordingly. Fifth, this revised categorization structure was reviewed again by the first and the third researcher to identify any further inconsistencies. In

the end, after three rounds of reviewing and correction more than 90% of consistency was achieved among the three researchers. Thus the interrater reliability was established (Caro *et al.*, 1979).

Result

The content analysis concludes that vast majority of the reporting companies share eight common CSR-oriented organizational processes. These processes are the underlying common management processes by which firms deploy their scanning, sensing and reconfiguration capabilities for CSR management and corporate sustainable development.

The key processes underpinned by the scanning capability

Teece (2007) and Schreyögg and Kliesch-Eberl (2007) suggest that the monitoring role played by dynamic capabilities involves various analytical activities to sense, learn and interpret the signals reflecting the emerging environmental changes. We extend this theoretical argument to CSR management by arguing that the scanning capability is manifested in a set of organizational processes by which external CSR expectations can be received, integrated and used for firms to define their sustainable business models and CSR investment priorities. Three managerial processes and their related CSR practices are thus categorized under the scanning capability: (1) communication with primary stakeholders; (2) communication with secondary stakeholders; and (3) prioritizing sustainability requirements (see Table 2).

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These processes reflect the sample companies' focus on the CSR requirements of both primary and secondary stakeholders. While the pressure from primary stakeholders, such as customers and governments, is still regarded as the most relevant factor affecting the firms' CSR development, the voice of secondary stakeholders, such as NGOs and other interest groups, has been increasingly viewed as an equally important consideration. Because the sustainability needs of secondary stakeholders are usually distant and unfamiliar to firms (Dixon and Fallon, 1989; Gladwin *et al.*, 1995; Hart and Sharma, 2004; Hart and Dowell, 2010), deliberate communication practices and routines are developed by many of the sample companies, such as regular meetings or workshops, to facilitate the constructive dialogues with these stakeholders regarding CSR issues. For example, AstraZeneca established both formal and informal dialogue platforms with their stakeholders to ensure that the company's

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strategy development and risk management take account of stakeholders’ feedback (AstraZeneca, 2011).

Furthermore, explicit managerial approaches are also established to identify the most legitimate and urgent CSR concerns from the often conflicting views and interests of different stakeholders. For example, the Interactive Materiality Matrix Model developed by Ford enables the company’s Ceres Stakeholder Committee to categorize and prioritize the CSR issues according to their concern to stakeholders and their current or potential impact on Ford (Ford, 2012). In short, the initiatives of establishing open communication channels with various stakeholders reflect the possession and deployment of scanning capability of the sample companies. Scanning the CSR requirements of stakeholders is the starting point for companies to understand the fast changing sustainability trends. The newly acquired CSR insights are then forwarded to and interpreted by the individuals or planning units who are capable of making sense of them. By this way the new sustainability concerns of various stakeholders are categorized, compared and prioritized to navigate firms’ CSR direction.

The key processes underpinned by the sensing capability

The expectations of external stakeholders usually focus on the improvement of corporate environmental and social performance. In many cases they do not tell firms how to gain financial benefit at the same time (McWilliams and Siegel, 2001). Therefore, the sensing capability is vital. This capability enables firms to not only sense potential CSR risks, but more importantly, to identify sustainable development opportunities to meet the environmental, social and economic targets simultaneously. In this regard, three categories of organizational processes emerge from the CSR reports of sampled companies: (1) boundary-spanning knowledge sharing and application; (2) establishing and regularly updating CSR development plans and milestones; (3) developing and managing a clear CSR governance structure (see Table 3). These three organizational processes are involved in the deployment of the sensing capability of the reporting companies.

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Extensive knowledge exchange is the key to identify potential corporate sustainable development opportunities. At an inter-organizational level, the sample companies especially focus on the close collaboration with their supply chain partners, and various NGOs and

higher-education institutions. The knowledge sharing with supply chain partners often targets situation-specific, project-based CSR initiatives to solve existing sustainability problems across the value chain. For example, the Supply Chain Risk Management Committee established within Taiwan Semiconductor Manufacturing Co. works closely with the supply chain partners to monitor the effectiveness of continuous improvement projects and improve green procurement, environmental protection, regulatory compliance, certification acquisition, and industrial safety assurance (Taiwan Semiconductor Manufacturing Co., 2011). On the other hand, the knowledge exchange with NGOs and higher-education institutions involves more broad issues range from CSR prospect analysis to new green technologies experimentation. For example, in a large-scale social service improvement program, NTT Docomo collaborates with schools, hospitals and local communities to initiate a series of ICT services to support health and medical care, environmental protection, and social security and safety (NTT Docomo, 2011).

At an intra-organizational level, the cross-functional information sharing regarding sustainable operations is encouraged and supported within and between departments. Once novel sustainability initiatives are applied and proved successful, various learning and training programmes are carried out to disseminate the newly gained knowledge within the firm. For example, Nestlé initiates various learning and training programs for their employees to effectively respond to the local CSR needs of the regions in which they stay (Nestlé, 2011). Moreover, it is worth noting that the sample companies not only support CSR learning activities of their employees, but also host various education programs for their supply chain partners. This finding confirms the assertion that the business partners involving in the same value chain should work together to build the relational competence for supply chain sustainability (Lee and Klassen, 2008, Gold, *et al.*, 2010).

To support boundary-spanning knowledge sharing and application, most of the sample companies have developed clear CSR development plans, milestones, and governance structures to manage company-wide CSR issues, systematically obtain knowledge across organizational boundaries, and apply the knowledge to the related organizational functions through various innovation activities. These managerial approaches reflect the sample companies' possession of outstanding capabilities to secure beneficial opportunities from CSR through developing organizational routines and mobilising relevant organizational resources.

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The key processes underpinned by the reconfiguration capability

One of the most important hindrances to effective CSR management is the capabilities trap. Capabilities trap means that firms with superior performance tend to stick to their existing capabilities to ensure reliable and efficient operation (Hannan and Freeman, 1984; Leonard-Barton, 1992; Levinthal and March, 1993). It makes an organization reluctant to change its familiar “way of doing”, even when the changing environmental condition has began to undermine its fundamental capabilities base (Repenning and Sterman; 2002; Schreyögg and Kliesch-Eberl, 2007).

This capabilities trap is more salient in CSR management and corporate sustainable development (Berchicci and King; 2007). Because the link between CSR-oriented actions and firms’ economic performance is not straightforward (Hart and Dowell, 2010), to avoid the disturbance in their current operations, many firms prefer short-term based, end-of-pipe approaches to solve the imposed sustainability problems, even though such an approach actually entails huge, non-productive cost (Hart, 1995; Russo and Fout, 1997). The reconfiguration capability, however, helps firms to overcome the so-called capabilities trap in CSR management through purposefully modifying the existing unsustainable business functions and operations.

The sample companies in the sample exhibited substantial capabilities to overcome the capabilities trap problem through: (1) measuring and monitoring the sustainable performance of their business operations against pre-set criteria, and (2) implementing standard management systems to modify and regulate existing business operations (see Table 4). These management processes share certain characteristics and reflect the reconfiguration capability possessed by the sample companies.

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Insert Table 4 about here
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First, the sample companies commonly use a set of measuring, auditing and risk analysis methods to evaluate the sustainable performance of their operations. For example, Unilever has developed a set of metrics to measure four prioritized environmental impact areas across the value chain: greenhouse gas (GHG) emissions, water, waste, and sustainable sourcing (Unilever, 2009). The adoption of these practices echoes the argument that when firms intend to take proactive actions towards sustainability, they should firstly make reliable estimation

about the environmental and social impact of their existing operational functions, so as to inform right decision makings (McWilliams and Siegel, 2001; Berchicci and King; 2007).

Second, to regulate their CSR operations, the reporting companies engage in various CSR management systems, such as ISO standard series (ISO 9000 or ISO14001) or the ethical codes of conduct. These systems are described as the formalization of the past experience accumulated from the recurrent sustainability-related innovation activities (Sharma and Vredenburg, 1998; Florida and Davison, 2001; Winter, 2003) and often recognized as “best practices” (Christmann, 2000; Eisenhardt and Martin, 2000). They can offer consistent action patterns by standardizing task execution in similar situations (Wood, 1991; Aragon-Correa, 1998; Aragon-Correa and Sharma, 2003). However, it is worthwhile to point out that the CSR management systems adopted by the sample companies vary greatly across industrial sector and geographic regions. This reflects the fact that although firms may use a common set of dynamic capabilities for CSR management, their detailed managerial approaches still have to be tailored to accommodate the specific institutional environments and CSR challenges they face.

Figure 2 concludes the eight key management processes involved in the deployment of the scanning, sensing and reconfiguration capabilities for CSR management. These processes represent the common managerial routines by which the dynamic capabilities for CSR management are performed to develop and implement various CSR initiatives and practices in the leading firms across different industrial sectors and geographic regions. It could be thus argued that a common set of dynamic capabilities and organizational processes do exist in the CSR management of leading companies at least at the time of reporting. Nevertheless, it is worth noting that, because the dynamic capabilities performed by different organizations are idiosyncratic in detail (Eisenhardt and Martin, 2000), the deployment of the dynamic capabilities for CSR management may result in various operational practices. Therefore, what is more important in CSR standardization is the identification and development of the underlying dynamic capabilities and the related organizational processes and routines, rather than the detailed operational activities.

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Insert Figure 2 about here
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Discussion

Drawing on DCV, we examined the common CSR management processes of the sample companies. It is interesting to find that all of these common processes, such as improved communication with stakeholders, boundary-spanning knowledge sharing, and the establishment of CSR governance structure, are leading towards the development and implementation of longer term capabilities of firms. Many of these processes or approaches may not have immediate effect on the performance of the sample companies. However, they ensure that CSR strategies can be amalgamated with the business strategies of firms, so that dedicated CSR development path can be generated in the future.

The deployment of the dynamic capabilities for CSR management involves establishing deliberate organizational changing routines by which firms can constantly meet the strategic fit between external CSR expectations and their internal resource and capabilities configuration. This requires firms to build long-term sustainable development vision and break their well-entrenched managerial cognition frame. It is by no means just introducing a set of commonly agreed procedures. This is also the reason why existing CSR standards are hardly adopted by all the companies.

First, firms have to adopt a long-term and flexible transformation vision to gradually change their business orientation from purely profit-orientated to a more sustainable one. Firms' CSR development cannot be accomplished through the so-called radical innovation. Radical innovation means using a completely different set of rules to rebuild firms' existing organizational functions and processes in a short period of time (Henderson and Clark, 1990). However, for CSR development no such rules exist (Jennings and Zandbergen, 1995).

Second, firms cannot simply rely on the incremental change of their existing operational functions for CSR development, because the self-adjustment and continuous improvement of these functions have to follow their life-cycle trajectories (Helfat and Peteraf, 2003, Schreyögg and Kliesch-Eberl, 2007). This incremental change may satisfy current CSR needs but fail to respond to future challenges (Hart, 1997). Therefore, firms have to not only consider the immediate CSR concerns, but also develop long-term vision for sustainable development, through which some business functions are retained or modified, others are discarded, and new ones are acquired, resulting in a reconfigured capabilities portfolio that incorporates both existing and new knowledge (Lavie, 2006).

Third, establishing organizational changing routines for CSR management and sustainable development requires firms to overcome their existing cognition frames. These taken-for-

granted cognition frames are deeply rooted in daily activities patterns (Helfat and Peteraf, 2003; Winter, 2003), and difficult to change (Leonard-Barton, 1992). They may impede the forward looking to identify profitable investment opportunities from the seemingly unrelated social and environmental issues (Hart and Dowell, 2010). Breaking these cognition impediments needs both dedicated managerial attention and efforts (Hart and Dowell, 2010), and extensive cross-functional knowledge integration (Grant and Baden-Fuller, 1995; Sharma and Vredenburg, 1998; Hart and Dowell, 2010).

To sum up, because different firms face different institutional environments, they have to carry out various management practices to cope with their specific CSR challenges. In this sense, it is difficult to establish a universal CSR standard to regulate the detailed activities and behaviours of all firms.

However, the content analysis of this paper shows that the leading firms do follow a set of common organizational processes to deploy their dynamic capabilities for CSR management. Thus, it could be argued that the focus of CSR standardization might be on providing the guidance for firms to break their existing managerial myopia for long-term sustainable development, and develop organizational capabilities and routines for CSR management.

Conclusion

This paper contributes to the understanding of CSR standardization by focusing on the underlying capabilities and processes involved in CSR management, rather than the detailed CSR standards and activities. Drawing on the dynamic capabilities perspective, we suggest that a set of dynamic capabilities for CSR management play a more fundamental role in shaping the detailed CSR practices. We further prove that commonalities do exist in the development and deployment of these dynamic capabilities across companies in different industrial sectors or geographical regions.

The content analysis of world leading companies' CSR reports exhibits the common CSR management processes underpinned by the scanning, sensing and reconfiguration capabilities. These processes reflect the commonalities when the leading companies in various industrial sectors and nations deploy their dynamic capabilities for CSR management. In the content analysis, we examined not only what common dynamic capabilities can be applied to CSR initiatives of firms, but also how firms can mobilize these capabilities to accomplish their CSR objectives.

This paper developed a theoretical framework to illustrate how dynamic capabilities for CSR management potentially enable firms to follow certain managerial processes to sense and seize sustainable development opportunities. This framework stresses the interrelatedness of scanning, sensing and reconfiguration capabilities in responding to stakeholder CSR requirements and mobilizing firms' internal resources to simultaneously pursue economic, environmental and social benefits. Given the fast changing nature of stakeholder expectations, it is important for managers to realize that deploying dynamic capabilities for CSR management is a continuous process. Firms should also build their long-term transformation vision for both CSR management and sustainable development. Moreover, firms should not attach to their fixed organizational functions, but focus on the underlying changing routines and mechanism for CSR-oriented innovation. During the change process, both intra and inter-organizational knowledge exchange should be encouraged to break the conventional managerial cognition frame. It is worth noting, the framework developed in this paper is just a benchmarking guidance for firms to regulate their CSR activities. Managers can use their own ways to utilize the framework based on their specific business and institutional environments.

This study is an early attempt to understand the fundamental organizational capabilities and processes involved in CSR management from the dynamic capabilities perspective. The proposed dynamic capabilities framework offers a starting point for future researchers to further explore the role of dynamic capabilities in CSR management. Given that this study is based on the content analysis of only world leading firms, future researchers can carry out large-scale surveys and in-depth interviews in various companies to verify the proposed framework. Furthermore, limited by the information provided in the CSR reports of the sample companies, the current study mainly focuses on the good CSR practices rather than the bad examples. Future studies may collect more balanced information and compare good and bad examples of CSR, so that to examine our theoretical framework more comprehensively.

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Table 1 – Organizations included in sample

Industrial Sectors									
Regions	Industrial Goods	Consumer Goods	Materials	Technology	Telecommunications	Oil & Gas	Healthcare	Finance	
American (20)	General Electric Co	Coca-Cola	Dow Chemical	IBM	AT&T	Chevron Corp	Baxter Intl Inc	Wells Fargo & Company	
	3M Co	Colgate-Palmolive Co	Praxair Inc	Intel Corp		Exxon Mobil Corp	Johnson & Johnson		
		Ford Motor Co	Procter & Gamble	Microsoft Corp		Merck & Co	Unitedhealth Group Inc		
		PepsiCo Inc							
European (26)	Atlas Copco AB	Adidas	BASF SE		Nokia	Ericsson	BG Group	AstraZeneca	Allianz
	Sandvik AB	Bayer Motoren Werke AG (BMW)	Bayer AG	Royal Dutch Shell			GlaxoSmithKline	HSBC	
	Siemens AG	Diageo PLC		TOTAL SA			Novartis AG Reg		
	Volvo AB	Nestlé					Roche Hldgs AG		
		Royal Philips Electronics					Sanofi		
	Unilever								
Asian (18)	Asahi Glass Co	Hyundai Mobis	BHP Billiton	Samsung Electronics Co	NTT Docomo				Mizuho Financial Group
	Mitsui & Co	Kia Motors Corp	LG Chem Ltd	SK Hynix Inc					
	Marubeni Corp Toshiba Corp	KT&G Corp	POSCO	Taiwan Semiconductor Manufacturing Co					
		Nissan Motor							
		Toyota Motor							
Total	10	16	8	7	5	5	9	4	

Table 2 – The key CSR management processes underpinned by the scanning capability

Top three related CSR practices	Key CSR management processes	No. of the CSR reports covering this process	Percentage of Coverage
1. Regular meetings/workshops with government/financial institutions 2. CSR conferences/forums with business partners 3. Consumer satisfaction surveys and feedback	• Communication with primary stakeholders	60	94%
1. Regular meetings/workshops with NGOs 2. Regular meetings/workshops with local communities 3. Regular CSR information disclosure to the public	• Communication with secondary stakeholders	61	95%
1. Self check of the CSR issues that have high-level concerns to stakeholders 2. Self check of the CSR issues that have high-level concerns to the companies 3. Self check of the prioritized material topics for future CSR management	• Prioritizing sustainability requirements	53	83%

Table 3 – The key CSR management processes underpinning the sensing capability

Top three related CSR practices	Key CSR management processes	No. of the CSR reports covering this process	Percentage of Coverage
1. CSR-related training/education programs for employees and supply chain partners 2. CSR-related knowledge-exchange programs with external institutions 3. Regular meetings/workshops for cross-functional knowledge sharing regarding CSR management	• Boundary-spanning knowledge sharing and application	62	97%
1. Establishing CSR strategies and long-term sustainable development vision 2. Developing mid/short-term CSR development plans 3. Self check of the accomplishment of the established CSR development milestones	• Establishing and regularly updating CSR development plans and milestones	62	97%
1. Establishing board-level CSR steering committees 2. Establishing various functional CSR management groups 3. Proper staffing in key positions for CSR management	• Developing and managing CSR governance structure	60	94%

Table 4 – The key CSR management processes underpinning the scanning capability

Top three related CSR practices	Key CSR management processes	No. of the CSR reports covering this process	Percentage of Coverage
1. Developing formal measurement systems to monitor the sustainable performance of business operations 2. Providing standard guidance/procedures/handbooks for employees to self check their sustainable performance in daily operations 3. Establishing the feed-back routines for the self reporting of employees' concerns on sustainable performance of business operations	<ul style="list-style-type: none">Measuring and monitoring sustainable performance	64	100%
1. Implementing ISO standards (ISO 9001/14001) 2. Designing and implementing industry-specific ethical codes of conduct 3. Implementing other self-designed CSR management systems	<ul style="list-style-type: none">Implementing standard CSR management systems	61	95%

Figure 1 – The theoretical framework of dynamic capabilities for CSR management

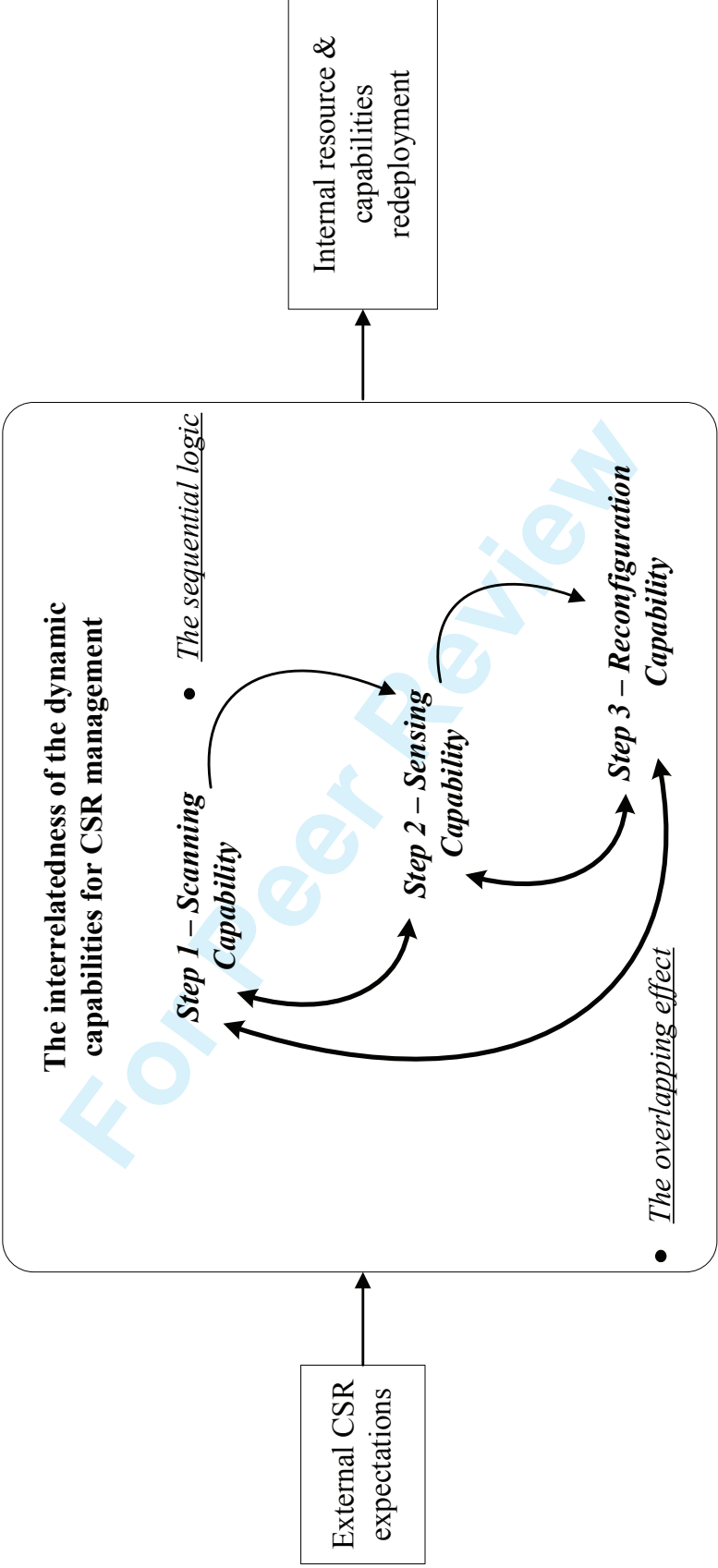


Figure 2 – Commonalities in the dynamic capabilities for CSR management

